SIK 11 ME
SIK 16 ME

Dimplex

Montage- und Gebrauchsanweisung

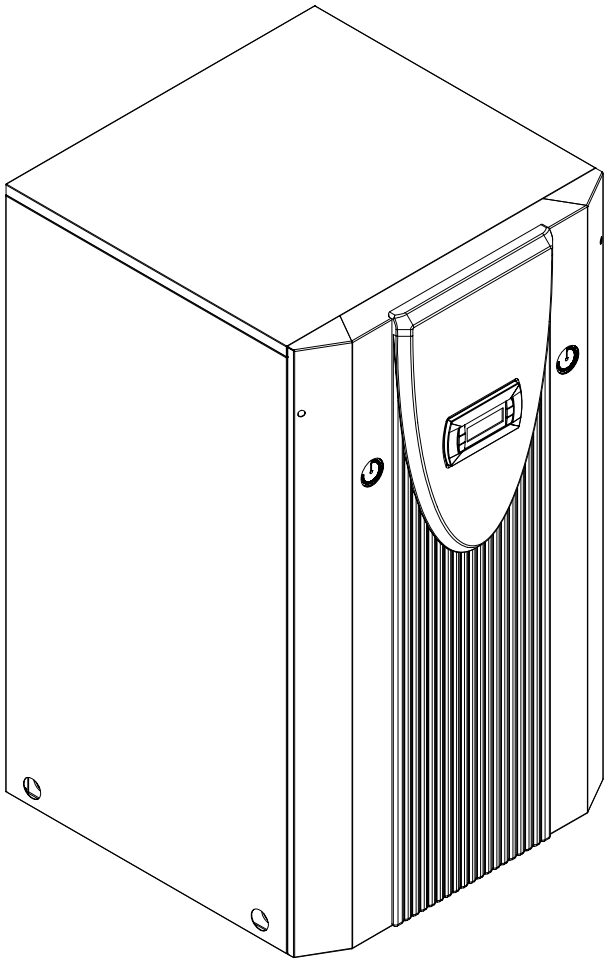
Deutsch

Installation and Operating Instructions

English

Instructions d'installation et d'utilisation

Français



Sole/Wasser-Wärmepumpe für Innenaufstellung

Brine-to-Water Heat Pump for Indoor Installation

Pompe à chaleur eau glycolée-eau pour installation intérieure

Bestell-Nr. / Order no. / N° de commande : 452231.66.11

FD 8612

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English

1 Please Read Immediately

1.1 Important Information

⚠ ATTENTION!
The heat pump is not secured to the wooden pallet.

⚠ ATTENTION!
The heat pump must not be tilted more than 45° (in any direction).

⚠ ATTENTION!
Do not use the holes in the panel assemblies for lifting the device!

⚠ ATTENTION!
In the case of large-volume heating circuits, an additional expansion vessel must be used to supplement the installed expansion vessel (24 litres, 1.0 bar admission pressure).

⚠ ATTENTION!
The brine solution must contain at least a 25 % concentration of a monoethylene glycol or propylene glycol-based antifreeze, which must be mixed before filling.

⚠ ATTENTION!
The heat pump must be started up in accordance with the installation and operating instructions of the heat pump controller.

⚠ ATTENTION!
The supplied dirt trap must be inserted in the heat source inlet of the heat pump to protect the evaporator against the ingress of impurities.

⚠ ATTENTION!
We recommend the installation of a suitable corrosion protection system to prevent the formation of deposits (e.g. rust) in the condenser of the heat pump.

⚠ ATTENTION!
Any work on the heat pump may only be performed by authorised and qualified after-sales service technicians.

⚠ ATTENTION!
Disconnect all electrical circuits from the power source prior to opening the device.

1.2 Legal Regulations and Directives

This heat pump conforms to all relevant DIN/VDE regulations and EU directives. Refer to the EC Declaration of Conformity in the appendix for details.

The heat pump must be connected to the power supply in compliance with all relevant VDE, EN and IEC standards. Any further connection requirements stipulated by local utility companies must also be observed.

The heat pump is to be connected to the heat source system and the heating system in accordance with all applicable regulations.

Persons, especially children, who are not capable of operating the device safely due to their physical, sensory or mental abilities or their inexperience or lack of knowledge, must not operate this device without supervision or instruction by the person in charge.

Children must be supervised to ensure that they do not play with the device.

1.3 Energy-Efficient Use of the Heat Pump

By operating this heat pump you are helping to protect our environment. Both the heating system and the heat source must be properly designed and dimensioned to ensure efficient operation. It is particularly important to keep water flow temperatures as low as possible. All connected energy consumers should therefore be suitable for low flow temperatures. Raising the heating water temperature by 1 K corresponds to an increase in energy consumption of approx.
2.5 %. Low-temperature heating systems with flow temperatures between 30 °C and 50 °C are particularly well-suited for energy-efficient operation.

2 Purpose of the Heat Pump

2.1 Application

The brine-to-water heat pump is designed for use in existing or newly built heating systems. Brine is used as the heat transfer medium in the heat source system. Borehole heat exchangers, ground heat collectors or similar systems can be used as the heat source.

2.2 Operating Principle

The heat generated by the sun, wind and rain is stored in the ground. This heat stored in the ground is collected at a low temperature by the brine circulating in the ground heat collector, the borehole heat exchanger or a similar system. A circulating pump then conveys the “heated” brine to the evaporator of the heat pump. There the heat is given off to the refrigerant in the refrigerating cycle. This cools the brine so that it can once again absorb thermal energy in the brine circuit.

The refrigerant is drawn in by the electrically driven compressor, compressed and “pumped” to a higher temperature level. The electrical power needed to run the compressor is not lost in this process. Most of it is absorbed by the refrigerant.

The refrigerant subsequently passes through the liquifier where it transfers its thermal energy to the heating water. Depending on the set operating point (thermostat setting), the heating water is thus heated up to a max. of 60 °C.

3 Basic Device

The basic device consists of a ready-to-use heat pump for indoor installation in a compact design. In addition to the control panel with integral controller, the device is already equipped with all of the most important components of the heating circuit and the brine circuit:

- Expansion vessel
- Circulating pumps
- Pressure relief valves
- Pressure gauge
- Overflow valve (heating circuit)

The refrigerating cycle contains the refrigerant R407C. R407C refrigerant is CFC-free, non-ozone depleting and non-combustible.

All components required for the operation of the heat pump are located on the control panel. The power feed for the load current and the control current must be installed by the customer.

The customer must provide both the collector and the brine circuit manifold.

1) Control panel
2) Circulating pumps
3) Liquifier
4) Compressor
5) Evaporator
6) Expansion vessel

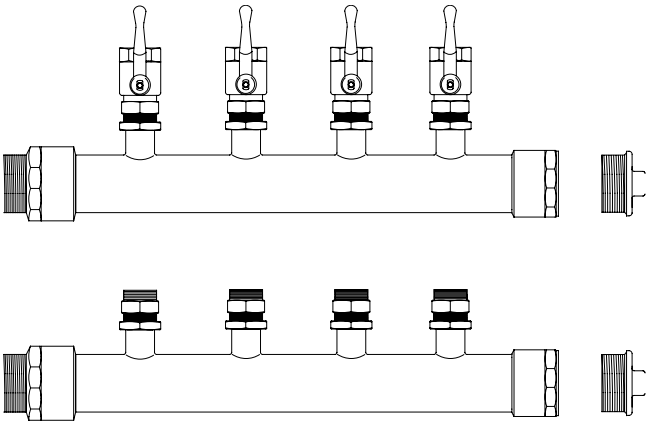
English

English

4 Accessories

4.1 Brine Circuit Manifold

The brine circuit manifold merges the individual collector loops of the heat source system into a single main pipe which is connected to the heat pump. Integrated ball valves allow the individual brine circuits to be shut off for de-aeration purposes.



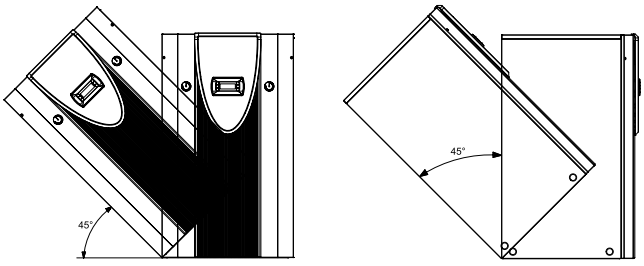
4.2 Brine Controller

If required by the authorities, a low-pressure brine controller can be installed in the device. In this case, the connection located upstream from the brine expansion vessel provided for this purpose is to be used.

5 Transport

A lift truck is suited for transporting the unit on a level surface. Carrying straps may be used if the heat pump needs to be transported on an uneven surface or carried up or down stairs. These straps can be passed directly underneath the wooden pallet.

⚠ ATTENTION!
The heat pump is not secured to the wooden pallet.



⚠ ATTENTION!
The heat pump must not be tilted more than 45° (in any direction).

Use the holes provided in the sides of the frame to lift the unit without the pallet. The side panel assemblies must be removed for this purpose. Any commercially available length of pipe can be used as a carrying aid.

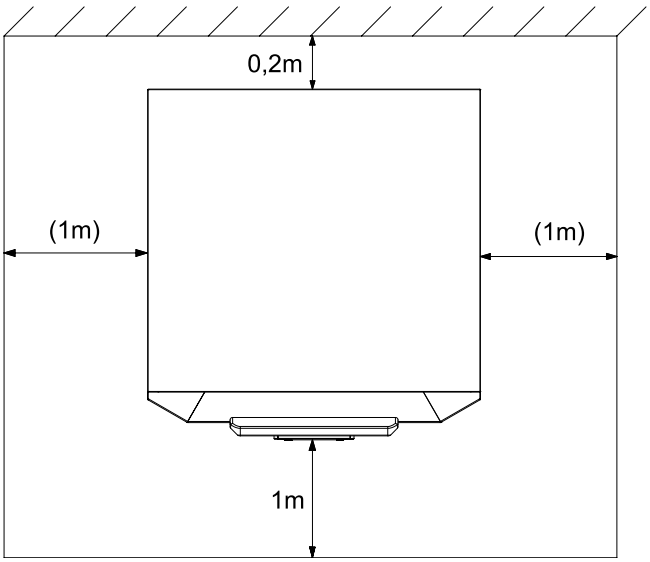
⚠ ATTENTION!
Do not use the holes in the panel assemblies for lifting the device!

6 Set-up

6.1 General Information

The unit must be installed indoors on a level, smooth and horizontal surface. The entire base of the frame should lie directly on the floor to ensure a good soundproof seal. If this is not the case, additional sound insulation measures may be necessary.

The heat pump must be installed so that maintenance work can be carried out without hindrance. This can be ensured by maintaining a clearance of approx. 1 m in front of and on each side of the heat pump.



6.2 Acoustic Emissions

The heat pump operates silently due to efficient sound insulation. Internal insulation measures should be carried out to prevent vibrations from being transmitted to the foundation or to the heating system.

7 Installation

7.1 General Information

The following connections need to be established on the heat pump:

- Flow and return flow of the brine system
- Flow for heating and domestic hot water preparation
- Joint return flow for the heating and domestic hot water preparation
- Return flow of the overflow valve
- Connection for an additional expansion vessel (according to need)
- Outflows for the pressure relief valves
- Condensate outflow
- Power supply

7.2 Heating System Connection

The heat pump is equipped with separate outputs for the heating circuit and the hot water circuit.

If the heat pump is not intended to be used to heat up the hot water, the hot water output must be permanently sealed.

Before connecting the heating water system to the heat pump, the heating system must be flushed to remove any impurities, residue from sealants, etc. Any accumulation of deposits in the liquifier could cause the heat pump to completely break down.

An overflow valve is installed in the device for systems in which the heating water flow can be shut off via the radiator or thermostat valves. This ensures a minimum heating water flow rate through the heat pump and helps to avoid faults.

Once the heating system has been installed, it must be filled, deaerated and pressure-tested.

Antifreeze protection for installation locations prone to frost

The antifreeze function of the heat pump controller is active whenever the controller and the heat circulating pumps are ready for operation. If the heat pump is taken out of service or in the event of a power failure, the system has to be drained. The heating circuit should be operated with a suitable antifreeze if heat pump systems are implemented in buildings where a power failure can not be detected (holiday home).

The integrated expansion vessel has a volume of 24 litres. This volume is suitable for buildings with a living space area to be heated of maximum 200 m².

The volume should be checked by the heating system technician. If necessary, an additional expansion vessel must be installed (according to DIN 4751, Part 1). The tables listed in the manufacturers' catalogues simplify dimensioning the system on the basis of the water content.

⚠ ATTENTION!

In the case of large-volume heating circuits, an additional expansion vessel must be used to supplement the installed expansion vessel (24 litres, 1.0 bar admission pressure).

7.3 Heat Source Connection

The following procedure must be observed when connecting the heat source:

Connect the brine pipe to the heat pump flow and return.

The hydraulic plumbing diagram must be adhered to.

The dirt traps and micro bubble air separator included in the scope of supply must be inserted in the brine inlet of the heat pump by the customer.

The brine liquid must be produced prior to charging the system. The liquid must have an antifreeze concentration of at least 25 % to ensure frost protection down to -14 °C.

Only monoethylene glycol or propylene glycol-based antifreeze may be used.

The heat source system must be de-aerated and checked for leaks.

⚠ ATTENTION!

The brine solution must contain at least a 25 % concentration of a monoethylene glycol or propylene glycol-based antifreeze, which must be mixed before filling.

7.4 Electrical Connection

The following electrical connections need to be established on the heat pump.

- The mains cable must be connected to the control panel of the heat pump.
- The control voltage cable must be connected to the control panel of the heat pump.

All electrical components required for the operation of the heat pump are located on the control panel.

For detailed instructions on how to connect the external components and how the heat pump controller functions, please refer to the device connection diagram and the operating manual supplied with the controller.

The mains cable is connected via the terminals X5: L/N/PE on the control panel.

A disconnecting device with a contact gap of at least 3 mm (e.g. utility blocking contactor or power contactor) as well as a 1-pole circuit breaker have to be provided by the customer. The required conductor cross section is to be selected according to the power consumption of the heat pump, the technical connection requirements of the relevant electrical utility company as well as all applicable regulations. Details on the power consumption of the heat pump are listed on both the product information sheet and the type plate. The connection terminals are designed for a max. conductor cross section of 10 mm².

Connection of the control voltage via terminals X1:L/N/PE.

If a brine pump is required which is more powerful than the integral brine pump, a motor contactor and a corresponding motor circuit breaker must be installed. In such cases, the contactor is to be connected to the terminals for the internal brine pump (controller terminals J12/N03 and X1-N). The larger pump must then be supplied by the supply network.

English

8 Start-up

8.1 General Information

To ensure that start-up is performed correctly, it should only be carried out by an after-sales service technician authorised by the manufacturer. This may be a condition for extending the guarantee (see Warranty Service).

8.2 Preparation

The following items need to be checked prior to start-up:

- The heat pump must be fully connected, as described in Chapter 7.
- The heat source system and the heating circuit must have been filled and checked.
- Dirt traps and breathers must be inserted in the brine inlet of the heat pump.
- All valves that could impair proper flow in the brine and heating circuits must be open.
- The heat pump controller must be adapted to the heating system in accordance with the controller's operating instructions.
- Ensure the condensate outflow functions.
- The outflows of the brine and heating water pressure relief valves must not be impaired.

8.3 Start-up Procedure

The heat pump is started up via the heat pump controller.

⚠ ATTENTION!

The heat pump must be started up in accordance with the installation and operating instructions of the heat pump controller.

The performance level of the circulating pump must be adapted to the respective heating system.

The overflow valve must be adjusted to the requirements of the respective heating system. Incorrect adjustment can lead to faulty operation and increased energy consumption. We recommend carrying out the following procedure to correctly adjust the overflow valve:

Close all of the heating circuits that may also be closed during operation so that the most unfavourable operating state - with respect to the water flow rate - is achieved. This normally means the heating circuits of the rooms on the south and west sides of the building. At least one heating circuit must remain open (e.g. bathroom).

The overflow valve should be opened far enough to produce the maximum temperature spread between the heating flow and return flow listed in the table below for the current heat source temperature. The temperature spread should be measured as close as possible to the heat pump. The heating element of mono energy systems should be disconnected.

Heat source temperature		Max. temperature spread between heating flow and return flow
From	To	
-5° C	0° C	10 K
1° C	5° C	11 K
6° C	9° C	12 K
10° C	14° C	13 K
15° C	20° C	14 K
21° C	25° C	15 K

Any faults occurring during operation are displayed on the heat pump controller and can be corrected as described in the operating manual of the heat pump controller.

9 Maintenance and Cleaning

9.1 Maintenance

The heat pump is maintenance-free. To prevent faults due to sediment in the heat exchangers, care must be taken to ensure that no impurities can enter either the heat source system or the heating system. In the event that operating malfunctions due to contamination occur nevertheless, the system should be cleaned as described below.

9.2 Cleaning the Heating System

The ingress of oxygen into the heating water circuit may result in the formation of oxidation products (rust), particularly if steel components are used. These products enter the heating system via the valves, the circulating pumps and/or plastic pipes. It is therefore essential - in particular with respect to the piping of underfloor heating systems - that only diffusion-proof materials are used.

⚠ ATTENTION!
We recommend the installation of a suitable corrosion protection system to prevent the formation of deposits (e.g. rust) in the condenser of the heat pump.

Residue from lubricants and sealants may also contaminate the heating water.

In the case of severe contamination leading to a reduction in the performance of the liquifier in the heat pump, the system must be cleaned by a heating technician.

According to today's state of knowledge, we recommend using a 5 % phosphoric acid solution for cleaning purposes. However, if cleaning needs to be performed more frequently, a 5 % formic acid solution should be used.

In either case, the cleaning fluid should be at room temperature. We recommend flushing the heat exchanger in the direction opposite to the normal flow direction.

To prevent acidic cleaning agents from entering the heating system circuit, we recommend connecting the flushing device directly to the flow and return flow of the liquifier. It is important that the system be thoroughly flushed using appropriate neutralising agents to prevent any damage from being caused by cleaning agent residue remaining in the system.

Acids must be used with great care and all relevant regulations of the employers' liability insurance associations must be adhered to.

If in doubt, contact the manufacturer of the chemicals!

9.3 Cleaning the Heat Source System

⚠ ATTENTION!
The supplied dirt trap must be inserted in the heat source inlet of the heat pump to protect the evaporator against the ingress of impurities.

Clean the dirt trap's filter screen one day after start-up and subsequently in weekly intervals. If no more signs of contamination are evident, the filter can be removed to reduce pressure drops.

10 Faults / Trouble-Shooting

This heat pump is a quality product and is designed for trouble-free operation. In the event that a fault should occur, it will be indicated on the heat pump manager display. Simply consult the Faults and Trouble-shooting page in the operating instructions of the heat pump manager.

If you cannot correct the fault yourself, please contact your after-sales service technician.

⚠ ATTENTION!
Any work on the heat pump may only be performed by authorised and qualified after-sales service technicians.

⚠ ATTENTION!
Disconnect all electrical circuits from the power source prior to opening the device.

11 Decommissioning/ Disposal

Before removing the heat pump, disconnect it from the power source and close all valves. Observe all environmentally-relevant requirements regarding the recovery, recycling and disposal of materials and components in accordance with all applicable standards. Particular attention should be paid to the proper disposal of refrigerants and refrigeration oils.

12 Device Information

1	**Type and order code**			SIK 11ME	SIK 16ME
2	**Design**				
2.1	**Model**			Compact	Compact
2.2	**Degree of protection according to EN 60 529**			IP 20	IP 20
2.3	**Installation Location**			Indoors	Indoors
3	**Performance data**				
3.1	**Operating temperature limits:**				
	Heating water flow		**°C**	Up to 55	Up to 55
	Brine (heat source)		**°C**	-5 to +25	-5 to +25
	Antifreeze			Monoethylene glycol	Monoethylene glycol
	Minimum brine concentration (-13 °C freezing temperature)			25%	25%
3.2	**Temperature spread of heating water (flow/return flow)**	**at B0 / W35**	**K**	9.9	10
3.3	**Heat output / COP**	**at B-5 / W55** [1]	**kW / ---**	9.4 / 2.4	13.3 / 2.2
		at B0 / W50 [1]	**kW / ---**	11.3 / 3.0	15.5 / 2.9
		at B0 / W35 [1]	**kW / ---**	11.8 / 4.4	15.8 / 4.2
3.4	**Sound power level**		**dB(A)**	51	51
3.5	**Heating water flow with an internal pressure differential of**		**m³/h / Pa**	1.0 / 3500	1,3 / 3500
3.6	**Free compression of heat circulating pump (max. level)**		**Pa**	65500	43500
3.7	**Brine throughput with an internal pressure differential (heat source) of**		**m³/h / Pa**	3.0 / 13000	3.5 / 13000
3.8	**Free compression of brine circulating pump (max. level)**		**Pa**	40000	34000
3.9	**Refrigerant; total filling weight**		**type / kg**	R407C / 2.0	R407C / 2.3
4	**Dimensions, connections and weight**				
4.1	**Device dimensions without connections** [2]		**H x W x L mm**	1115 × 652 × 688	1115 × 652 × 688
4.2	**Device connections to heating system**		**Inch**	R 1¼" external	R 1¼" external
4.3	**Device connections to heat source**		**Inch**	R 1¼" external	R 1¼" external
4.4	**Weight of the transportable unit(s) incl. packing**		**kg**	191	203
5	**Electrical connection**				
5.1	**Nominal voltage; fuse protection**		**V / A**	230 / 25	230 / 32
5.2	**Nominal power consumption** [1]	**B0 W35**	**kW**	2.66	3.77
5.3	**Starting current with soft starter**		**A**	38	50
5.4	**Nominal current B0 W35 / cos φ**		**A / ---**	14.46 / 0.8	20.5 / 0.8
6	**Complies with the European safety regulations**			[3]	[3]
7	**Additional model features**				
7.1	**Water in device protected against freezing** [4]			Yes	Yes
7.2	**Performance levels**			1	1
7.3	**Controller internal/external**			Internal	Internal

1. This data indicates the size and capacity of the system. For an analysis of the economic and energy efficiency of the system, both the bivalence point and the regulation should also be taken into consideration. The specified values, e.g. B10 / W55, have the following meaning: Heat source temperature 10 °C and heating water flow temperature 55 °C.
2. Note that additional space is required for pipe connections, operation and maintenance.
3. See CE declaration of conformity
4. The heat circulating pump and the heat pump controller must always be ready for operation.

Anhang / Appendix / Annexes

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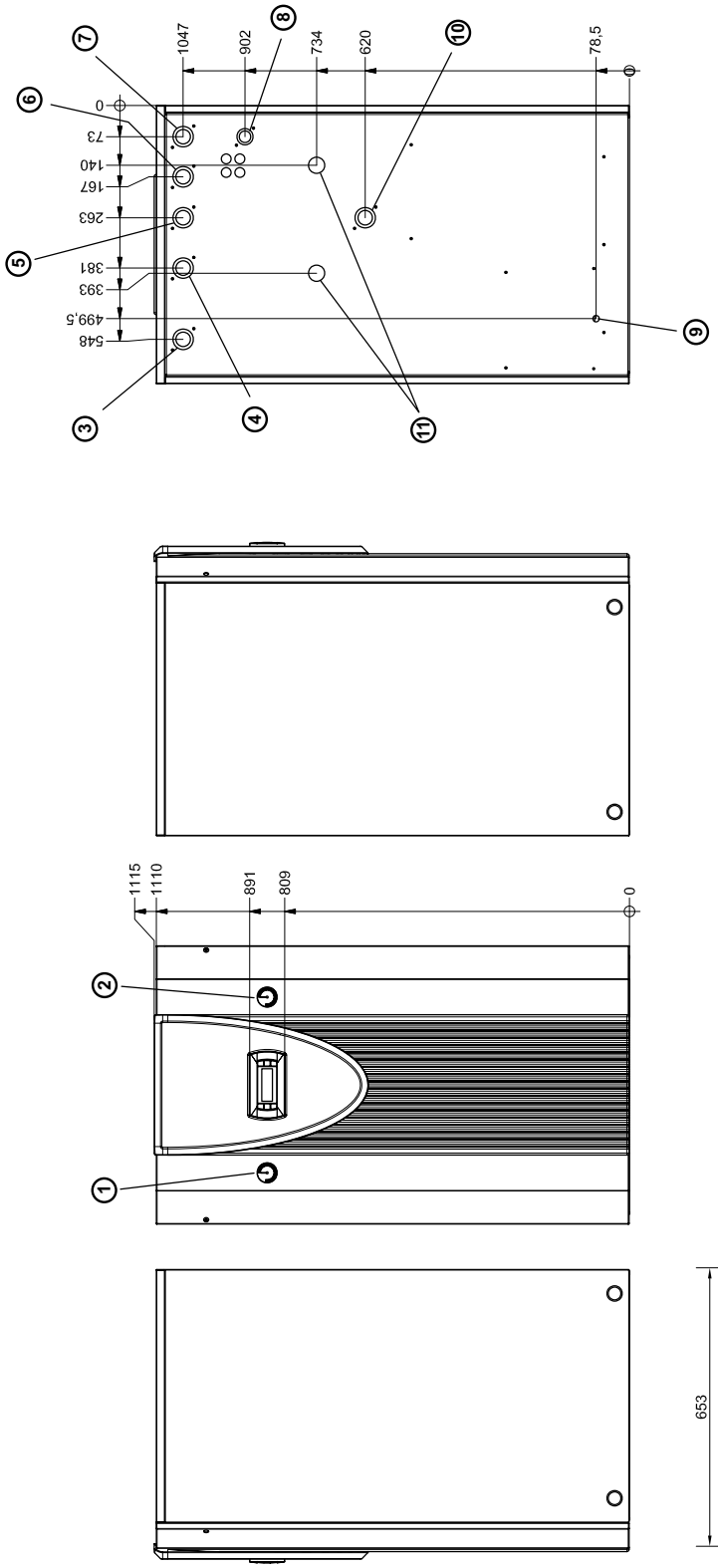
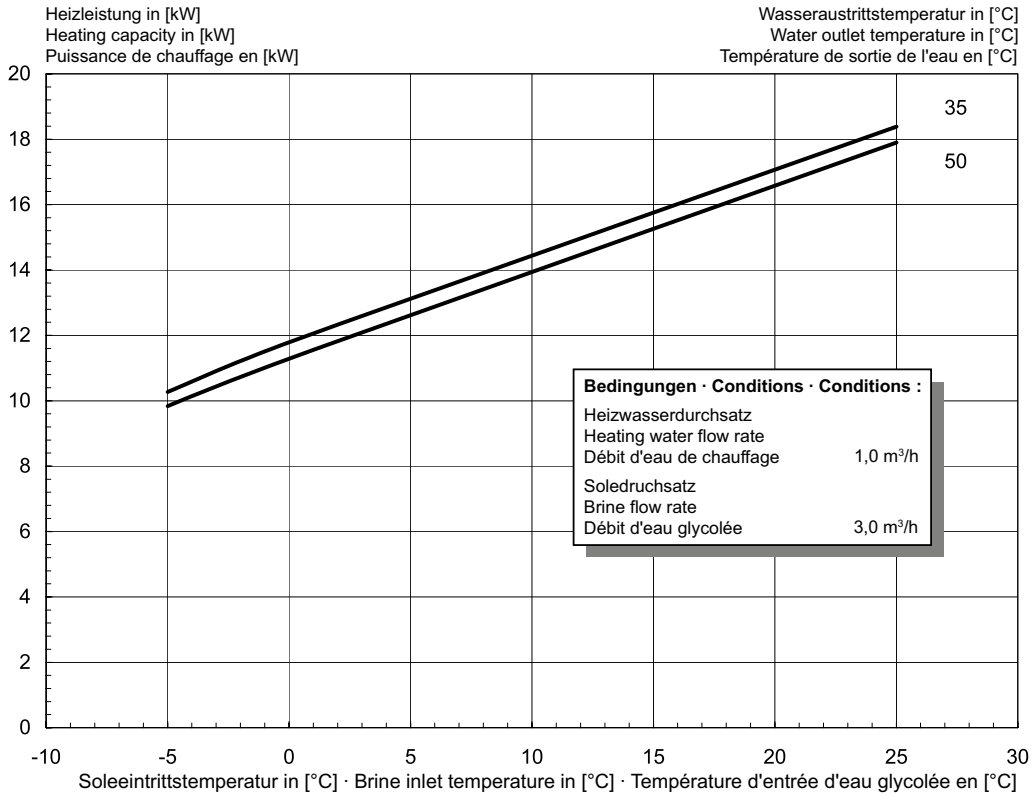
1 Maßbild / Dimension Drawing / Schéma coté

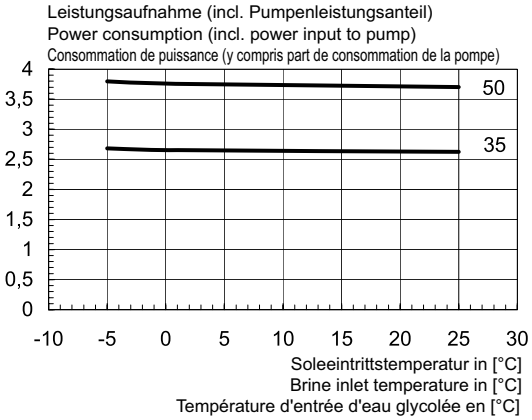


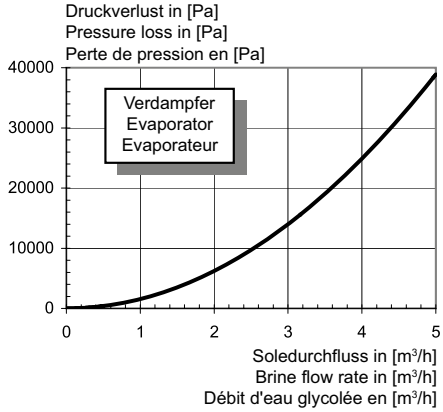
①	Manometer Heizkreis	Heating circuit pressure gauge	Manomètre circuit de chauffage
②	Manometer Solekreis	Brine circuit pressure gauge	Manomètre circuit eau glycolée
③	Wärmequelle Eingang in WP 1 1/4" Außengewinde	Heat source Heat pump inlet 1 1/4" external thread	Source de chaleur Entrée dans la PAC Filetage extérieur 1 1/4"
④	Wärmequelle Ausgang aus WP 1 /14" Außengewinde	Heat source Heat pump outlet 1 /14" external thread	Source de chaleur Sortie de la PAC Filetage extérieur 1 1/4"
⑤	Heizungsvorlauf Ausgang aus WP 1 1/4" Außengewinde	Heating water flow Heat pump outlet 1 1/4" external thread	Aller eau de chauffage Sortie de la PAC Filetage extérieur 1 1/4"
⑥	Überströmventil 1 1/4" Außengewinde	Overflow valve 1 1/4" external thread	Soupape de trop-plein Filetage extérieur 1 1/4"
⑦	gemeinsamer Rücklauf Eingang in WP 1 1/4" Außengewinde	Common return flow Heat pump inlet 1 1/4" external thread	Retour commun Entrée dans la PAC Filetage extérieur 1 1/4"
⑧	Anschluss zusätzliches Ausdehnungsgefäß 3/4" Außengewinde	Connection of an additional expansion vessel 3/4" external thread	Raccord pour vase d'expansion supplémentaire Filetage extérieur 3/4"
⑨	Kondensatablauf Außendurchmesser 12mm	Condensate outflow 12mm outer diameter	Ecoulement du condensat Diamètre extérieur 12mm
⑩	Warmwasservorlauf Ausgang aus WP 1 1/4" Außengewinde	Hot water flow Heat pump outlet 1 1/4" external thread	Aller eau chaude Sortie de la PAC Filetage extérieur 1 1/4"
⑪	Auslauf Überdruck Sole- und Heizkreis 3/4" Schlauch	Overpressure outlet Brine and heating circuits 3/4" hose	Décharge surpression Circuits eau glycolée et chauffage Tuyau flexible 3/4"

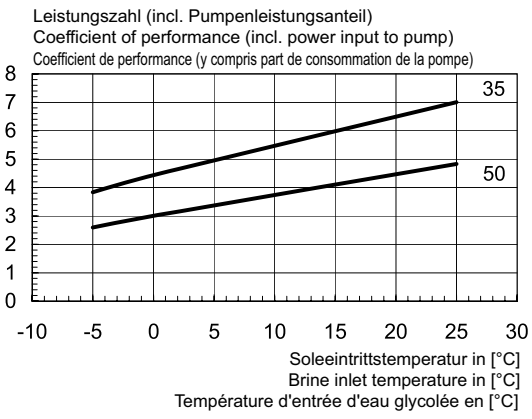
2 Diagramme / Diagrams / Diagrammes

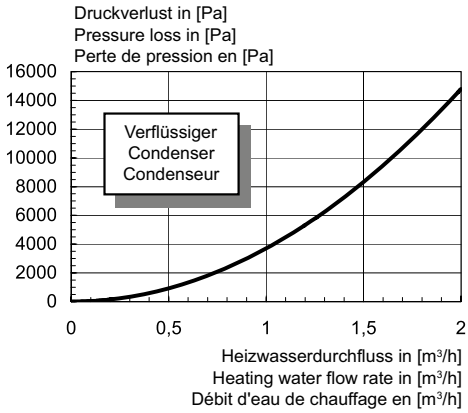
2.1 Kennlinien / Characteristic Curves / Courbes caractéristiques SIK 11ME


Heizleistung in [kW]
Heating capacity in [kW]
Puissance de chauffage en [kW]
Wasseraustrittstemperatur in [°C]
Water outlet temperature in [°C]
Température de sortie de l'eau en [°C]
35
50
Bedingungen · Conditions · Conditions :
Heizwasserdurchsatz
Heating water flow rate
Débit d'eau de chauffage 1,0 m³/h
Soledruchsatz
Brine flow rate
Débit d'eau glycolée 3,0 m³/h
Soleeintrittstemperatur in [°C] · Brine inlet temperature in [°C] · Température d'entrée d'eau glycolée en [°C]

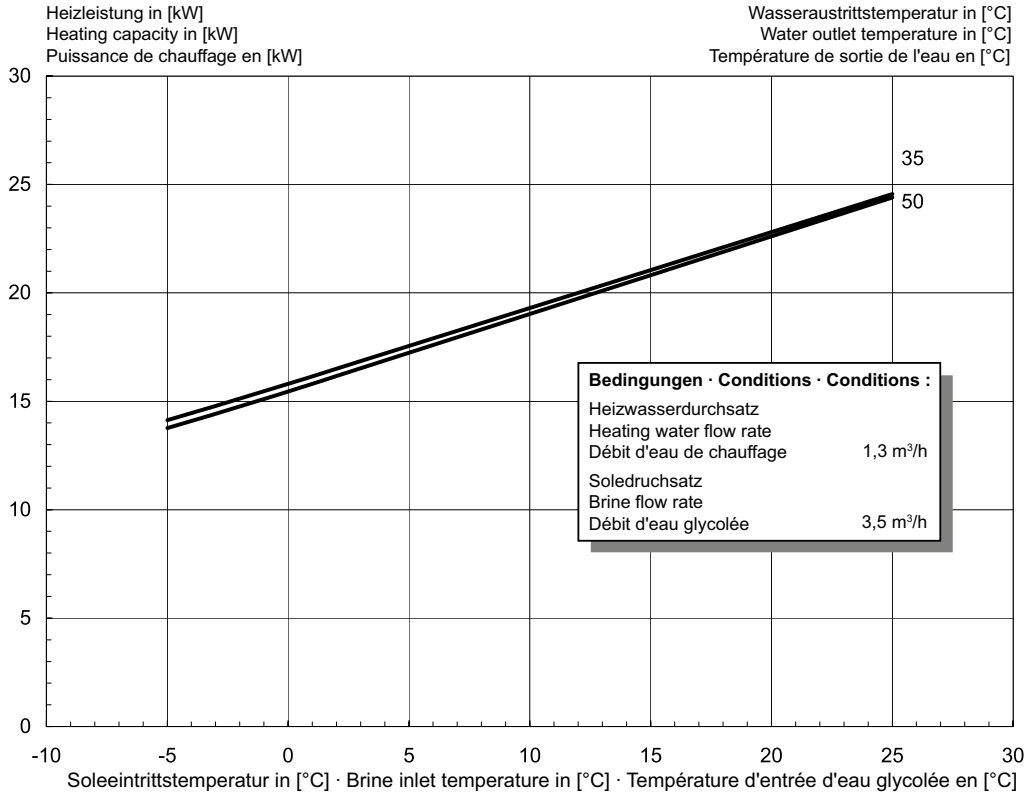

Leistungsaufnahme (incl. Pumpenleistungsanteil)
Power consumption (incl. power input to pump)
Consommation de puissance (y compris part de consommation de la pompe)
50
35
Soleeintrittstemperatur in [°C]
Brine inlet temperature in [°C]
Température d'entrée d'eau glycolée en [°C]

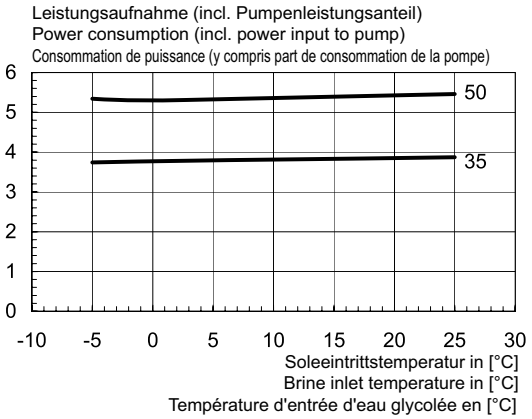


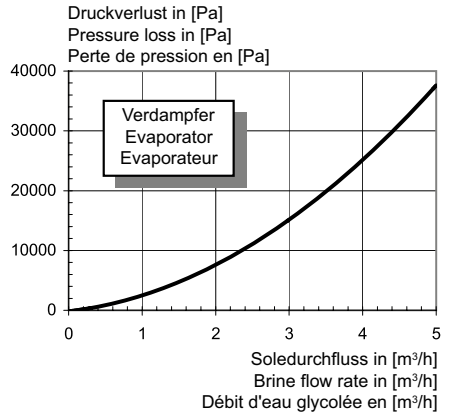

Leistungszahl (incl. Pumpenleistungsanteil)
Coefficient of performance (incl. power input to pump)
Coefficient de performance (y compris part de consommation de la pompe)
35
50
Soleeintrittstemperatur in [°C]
Brine inlet temperature in [°C]
Température d'entrée d'eau glycolée en [°C]

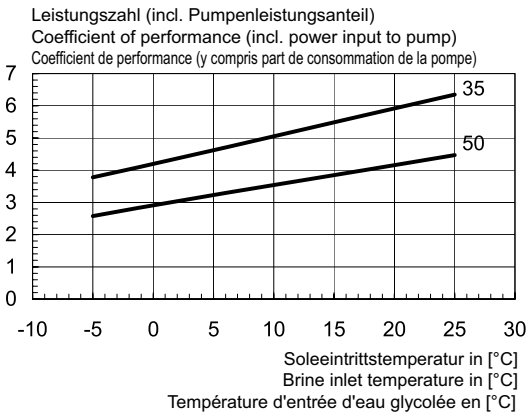


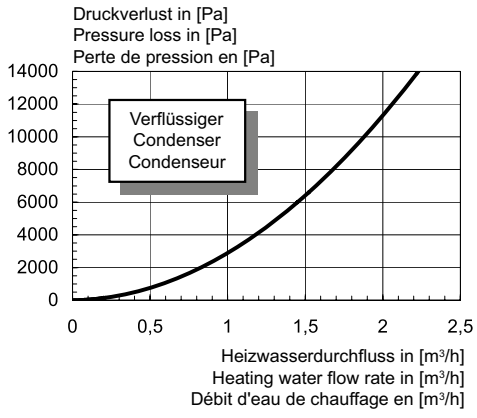
2.2 Kennlinien / Characteristic Curves / Courbes caractéristiques SIK 16ME





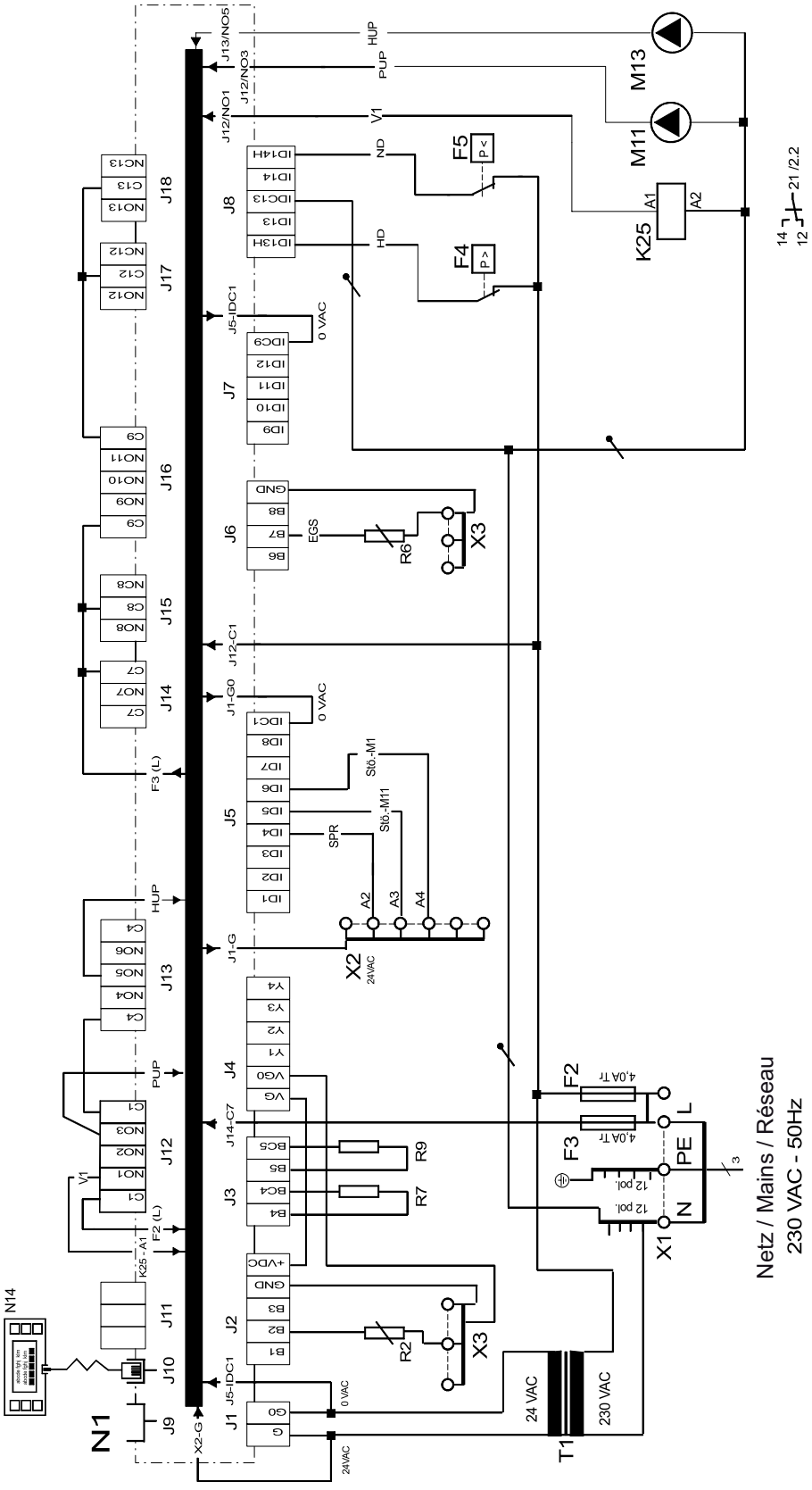




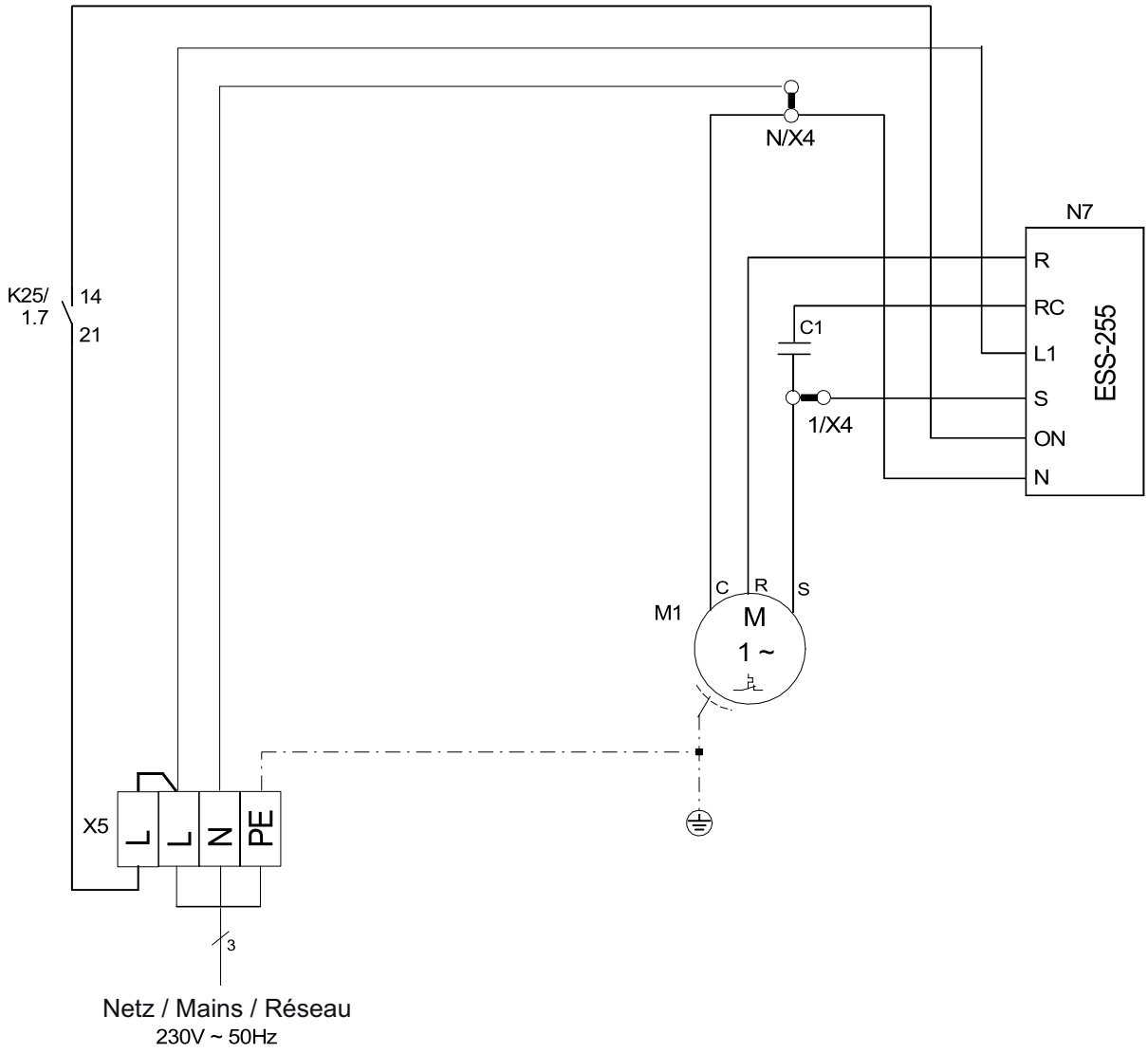


3 Stromlaufpläne / Circuit Diagrams / Schémas électriques

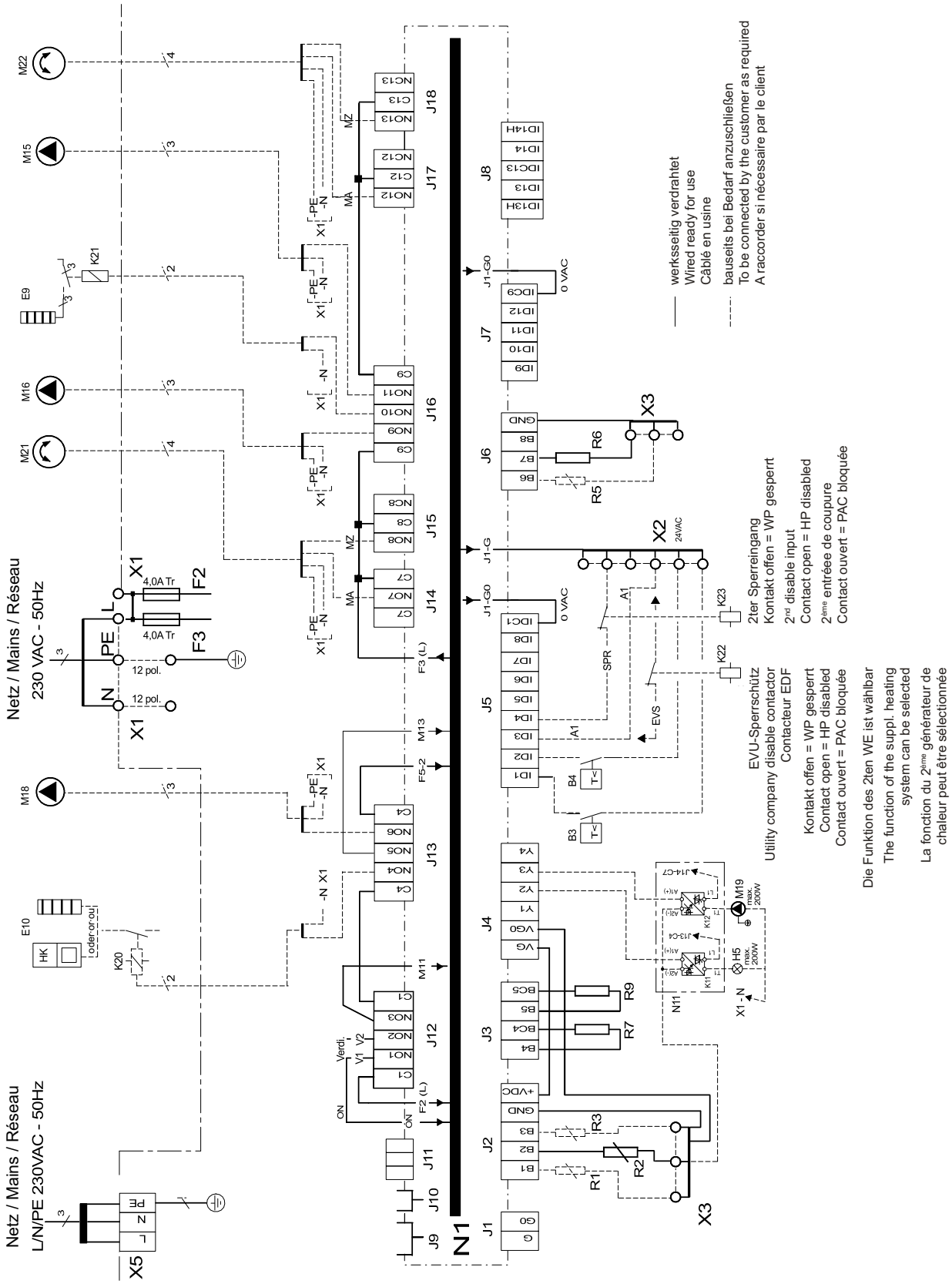
3.1 Steuerung / Control / Commande



3.2 Last / Load / Charge



3.3 Anschlussplan / Circuit Diagram / Schéma électrique

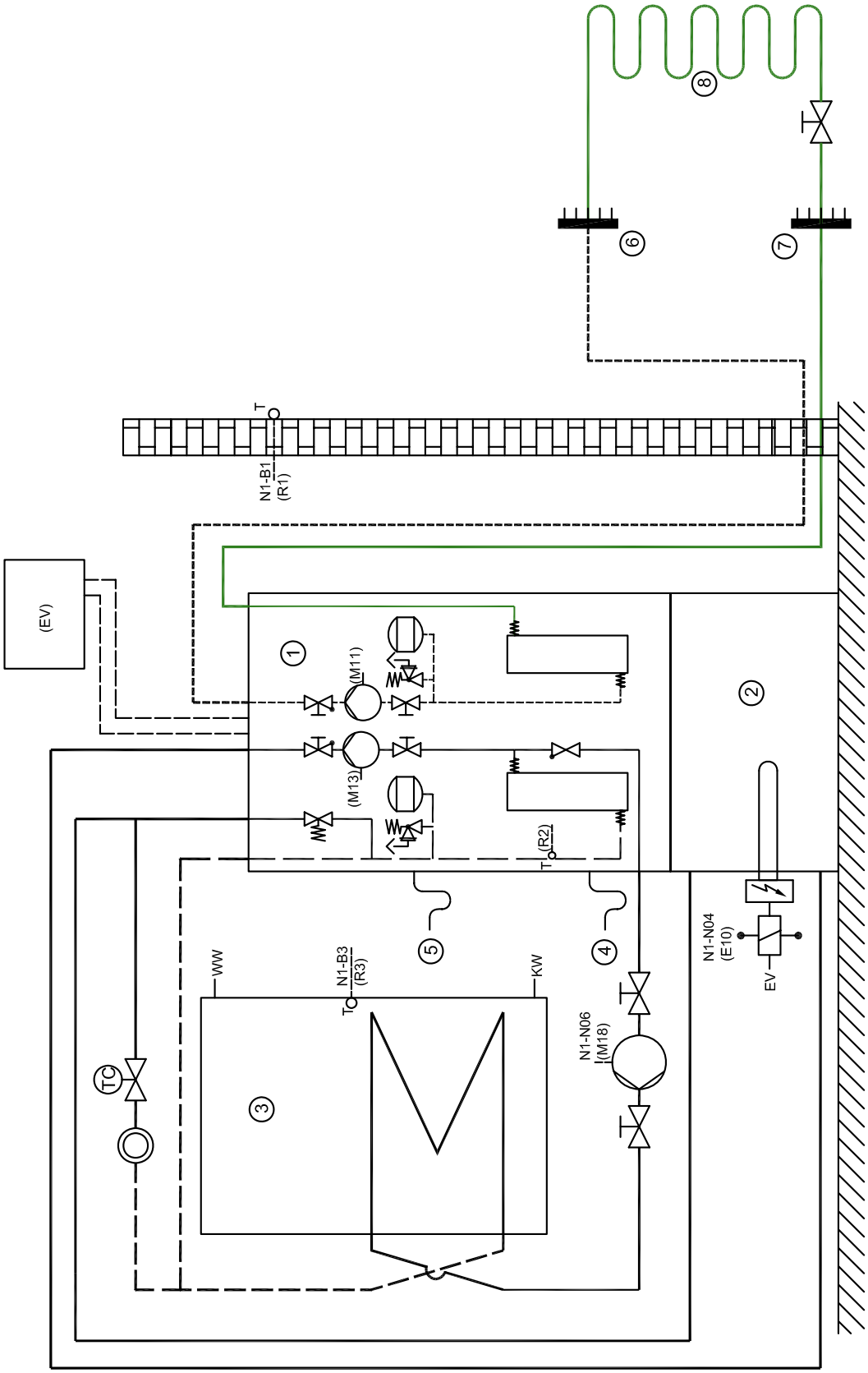


3.4 Legende / Legend / Légende

A1	Drahtbrücke, muss eingelegt werden, wenn kein EVU-Sperrschütz benötigt wird	Wire jumper, must be inserted if no utility blocking contactor is required	Cavalier à fil à monter si aucun contacteur de coupure du fournisseur d'énergie n'est requis
A2	Drahtbrücke, muss bei Verwendung des 2ten Sperreinganges entfernt werden	Wire jumper, must be removed if the 2nd disable contactor is used	Cavalier à fil à retirer si la 2e entrée de coupure est utilisée
B3*	Thermostat Warmwasser	Hot water thermostat	Thermostat eau chaude
B4*	Thermostat Schwimmbadwasser	Swimming pool water thermostat	Thermostat eau de piscine
C1	Betriebskondensator Verdichter	Running capacitor, compressor	Condensateur de service - compresseur
E9*	Elekt. Tauchheizkörper Warmwasser	Electric immersion heater hot water	Thermoplongeur élect. eau chaude
E10*	2. Wärmeerzeuger (Heizkessel oder elekt. Heizstab)	2nd heat generator (boiler or electric heating element)	2e générateur de chaleur (chaudière ou cartouche chauffante électr.)
F2	Lastsicherung für N1-Relaisausgänge an J12 und J13 4,0 ATr	Load fuse for N1 relay outputs at J12 and J13 4.0 slow-acting	Coupe-circuit de charge pour sorties de relais en J12 et J13 4,0 ATr
F3	Lastsicherung für N1-Relaisausgänge an J15 bis J18 4,0 ATr	Load fuse for N1 relay outputs at J15 to J18 4.0 slow-acting	Coupe-circuit de charge pour sorties de relais en J15 jusqu'à J18 4,0 ATr
F4	Pressostat Hochdruck	High-pressure switch	Pressostat haute pression
F5	Pressostat Niederdruck	Low-pressure switch	Pressostat basse pression
H5*	Leuchte Störfernanzeige	Remote fault indicator lamp	Témoin de télédétection de pannes
J1...J18	Klemmensteckverbinder an N1	Terminal connector at N1	Connecteur à bornes sur N1
K1	Schütz Verdichter	Contactor for compressor	Contacteur compresseur
K11*	Elektron. Relais für Störfernanzeige (auf Relaisbaugruppe)	Electronic relay for remote fault indicator (on relay module)	Relais électronique pour télédetection de pannes (sur module relais)
K12*	Elektron. Relais für Schwimmbadwasserumwälzpumpe (auf Relaisbaugruppe)	Electronic relay for swimming pool water circulating pump (on relay module)	Relais électronique pour circulateur eau de piscine (sur module relais)
K20*	Schütz 2. Wärmeerzeuger	Contactor for 2nd heat generator	Contacteur 2e générateur de chaleur
K21*	Schütz elekt. Tauchheizkörper Warmwasser	Contactor, electric immersion heater, hot water	Contacteur thermoplongeur élect. eau chaude
K22*	EVU-Sperrschütz	Utility blocking contactor	Contacteur de coupure du fournisseur d'énergie
K23*	SPR Hilfsrelais	SPR auxiliary relay	Relais auxiliaire « SPR »
K25	Startrelais Sanftanlasser	Start relay for soft starter	Démarreur progressif du relais départ
M1	Verdichter	Compressor	Compresseur
M11	Primärumwälzpumpe (Sole)	Primary circulating pump (brine)	Circulateur primaire (eau glycolée)
M13	Heizungsumwälzpumpe	Heat circulating pump	Circulateur de chauffage
M15*	Heizungsumwälzpumpe 2. Heizkreis	Heat circulating pump for heating circuit 2	Circulateur de chauffage 2e circuit de chauffage
M16*	Zusatzumwälzpumpe	Auxiliary circulating pump	Circulateur supplémentaire
M18*	Warmwasserumwälzpumpe	Hot water circulating pump	Circulateur d'eau chaude
M19*	Schwimmbadwasserumwälzpumpe	Swimming pool water circulating pump	Circulateur d'eau de piscine
M21*	Mischer Hauptkreis	Mixer for main circuit	Mélangeur circuit principal
M22*	Mischer 2. Heizkreis	Mixer for heating circuit 2	Mélangeur 2e circuit de chauffage
N1	Wärmepumpenregler	Heat pump controller	Régulateur de pompe à chaleur
N7	Sanftanlasser	Soft starter	Démarreur progressif
N11*	Relaisbaugruppe	Relay module	Module de relais
N14	Bedienteil	Operating element	Commande
R1	Außenfühler	External sensor	Sonde extérieure
R2	Rücklauffühler	Return flow sensor	Sonde de retour
R3	Warmwasserfühler (alternativ zum Warmwasserthermostat)	Hot water sensor (as an alternative to the hot water thermostat)	Sonde d'eau chaude (alternative au thermostat eau chaude)
R5	Fühler für 2ten Heizkreis	Sensor for heating circuit 2	Sonde pour 2e circuit de chauffage
R6	Eingefrierschutzfühler	Flow temperature limit sensor	Sonde antigel
R7	Kodierwiderstand 40,2 kOhm	Coding resistor, 40.2 kOhm	Résistance de codage 40,2 kohm
R9	Vorlauffühler	Flow sensor	Sonde aller
T1	Sicherheitstrenntransformator 230/24V AC-28VA	Safety isolating transformer 230/24 V AC-28 VA	Transformateur sectionneur de sécurité 230/24 V AC-28 V A
X1	Netz-Steuerung L/N/PE-230V AC-50 Hz / Sicherungen/N- und PE-Verteiler	Mains control L/N/PE-230V AC-50 Hz / fuses/N and PE terminal blocks	Commande-réseau L/N/PE-230V AC-50 Hz / fusibles/distributeur N et PE
X2	Klemmenleiste 24V AC-Verteiler	Terminal strip 24V AC terminal block	Bornier distributeur pour 24 V AC
X3	Klemmenleiste GND-Verteiler für analoge Eingänge an J2 und J6	Terminal strip for GND terminal block for analogue inputs at J2 and J6	Bornier distributeur GND pour entrées analogiques sur J2 et J6
X4	Klemmenleiste N/S-Verteiler	Terminal strip for N/S terminal block	Bornier du distributeur N/S
X5	Klemmleiste Netz-Last L/N/PE 230VAC - 50Hz	Terminal strip for mains load L/N/PE 230VAC - 50Hz	Bornier charge-réseau L/N/PE 230VAC - 50Hz
	Abkürzungen:	**Abbreviations:**	**Abréviations :**
EVS	EVU-Sperreingang	Utility disable contactor	Entrée de coupure fournisseur d'énergie
SPR	zusätzlicher Sperreingang, konfigurierbar	Supplementary disable contactor, configurable	Entrée coupure complémentaire, peut être configurée
MA*	Mischer AUF	Mixer OPEN	Mélangeur OUVERT
MZ	Mischer ZU	Mixer CLOSED	Mélangeur FERME
*	Bauteile sind extern beizustellen	Components to be supplied from external sources	Pièces à fournir par le client

4 Hydraulisches Prinzipschema / Hydraulic Plumbing Diagram / Schéma hydraulique

4.1 Darstellung / Schematic View / Représentation



4.2 Legende / Legend / Légende

	Rückschlagventil	Check valve	Clapet anti-retour
	Absperrventil	Shutoff valve	Robinet d’arrêt
	Überstromventil	Overflow valve	Vanne de trop-plein
	Sicherheitsventilkombination	Safety valve combination	Groupe de valves de sécurité
	Umwälzpumpe	Circulating pump	Circulateur
	Ausdehnungsgefäß	Expansion vessel	Vase d´expansion
	Raumtemperaturgesteuertes Ventil	Room temperature-controlled valve	Vanne commandée par température
	Absperrventil mit Rückschlagventil	Shutoff valve with check valve	Robinet d’arrêt avec clapet anti-retour
	Wärmeverbraucher	Heat consumer	Consommateur de chaleur
	Temperaturfühler	Temperature sensor	Sonde de température
	Flexibler Anschlussschlauch	Flexible connection hose	Tuyau de raccord flexible
①	Wärmepumpe mit integr. Wärmepumpenregler	Heat pump with integrated Heat pump controller	Pompe à chaleur intégrant régulateur PAC
②	Unterstellpufferspeicher	Built-under buffer tank	Réservoir tampon sous-jacent
③	Warmwasserspeicher	Hot water cylinder	Ballon d’eau chaude
④	Kondensatablauf	Condensate outflow	Ecoulement des condensats
⑤	Überdruck Heizung/Sole	Overpressure of the heating system/ brine	Surpression chauffage/eau glycolée
⑥	Soleverteiler	Brine circuit manifold	Distributeur d'eau glycolée
⑦	Solesammler	Brine collector	Absorbeur à circulation d’eau glycolée
⑧	Erdreichkollektoren oder Erdwärmesonden	Ground heat collectors or borehole heat exchangers	Collecteurs enterrés ou sondes géothermiques
E10	2ter Wärmeerzeuger	2nd heat generator	2e générateur de chaleur
M11	Primärumwälzpumpe	Primary circulating pump	Circulateur primaire
M13	Heizungsumwälzpumpe	Heat circulating pump	Circulateur de chauffage
M18	Warmwasserumwälzpumpe	Hot water circulating pump	Circulateur d’eau chaude
R1	Außenwandfühler	External wall sensor	Sonde de paroi extérieure
R2	Rücklauffühler	Return flow sensor	Sonde de retour
R3	Warmwasserfühler	Hot water sensor	Sonde d’eau chaude
EV	Elektroverteilung	Electrical distribution system	Distributeur courant électrique
KW	Kaltwasser	Cold water	eau froide
WW	Warmwasser	Domestic hot water	Eau chaude

5 Konformitätserklärung / Declaration of Conformity / Déclaration de conformité

EG - Konformitätserklärung
EC Declaration of Conformity
Déclaration de conformité CE ©

CE

Der Unterzeichnete
The undersigned
La société soussignée,

Glen Dimplex Deutschland GmbH
Geschäftsbereich Dimplex
Am Goldenen Feld 18
D - 95326 Kulmbach

bestätigt, dass das (die) nachfolgend bezeichnete(n) Gerät(e) aufgrund seiner (ihrer) Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Anforderungen der EG-Richtlinien entspricht (entsprechen).

Bei einer nicht mit uns abgestimmten Änderung des (der) Gerät(e)s verliert diese Erklärung ihre Gültigkeit.

hereby confirm that the design and construction of the product(s) listed below, in the version(s) placed on the market by us, conform to the relevant requirements of the applicable EC directives.

This declaration becomes invalidated if any modifications are made to the product(s) without our prior authorisation.

certifie que l'appareil / les appareils ci-après, par leur conception et leur mode de construction ainsi que par la définition technique avec laquelle il(s) sont mis en circulation par notre société, est / sont conforme(s) aux directives fondamentales CEE afférentes.

Ce certificat perd sa validité pour tout appareil modifié sans notre consentement.

Bezeichnung / Designation / Désignation	***EG - Richtlinien / EC Directives / Directives CEE***
Sole/Wasser-Wärmepumpen *für Innenaufstellung mit R407C*	*EG- Niederspannungsrichtlinie / EC Low Voltage Directive / Directive CEE relative à la basse tension (2006/95/EG)*
Brine-to-water heat pumps *for indoor installation, containing R407C*	*EG-EMV-Richtlinie / EC EMC Directive / Directive CEE relative à la compatibilité électromagnétique (89/336/EWG)*
Pompes à chaleur eau glycolée/eau *pour installation intérieure avec R407C*	*Druckgeräterichtlinie / Pressure Equipment Directive / Directive CEE relative aux appareils sous pression (97/23/EG)*

Typ(e):	***Harmonisierte EN / Harmonized EB Standards / Normes EN harmonisées:***	
SIK 11ME	*EN 255:1997*	
SIK 16ME	*EN 378:2000*	
	DIN 8901	
	DIN EN 60335-1 (VDE 0700 T1):2006	*EN 60335-1:2002+A11+A1+A12+ Corr.+A2:2006*
	DIN EN 60335-2-40 (VDE 0700 T40):2006-11	*EN 60335-2-40:2003+A11+A12+A1+Corr.:2006*
	DIN EN 55014-1 (VDE 0875 T14-1):2003-09	*EN 55014-1:2000+A1:2001+A2:2002*
	DIN EN 55014-2 (VDE 0875 T14-2):2002-08	*EN 55014-2:1997+A1:2001*
	DIN EN 61000-3-2 (VDE 0838 T2):2005-09	*EN 61000-3-2:2000+A2:2005*
	DIN EN 61000-3-3 (VDE 0838 T3):2002-05	*EN 61000-3-3:1995+Corr.:1997+A1:2001*

Nationale Richtlinien / National Directives / Directives nationales

D	***A***	***CH***
BGR 500		*SVTI*

Kulmbach, 09.02.2007

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Geschäftsführer / Managing Director

Andreas Tilch
Spartenleiter / Head of business unit

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